

**DRAFT**

**SECTION 4(f) EVALUATION**

P.I.N. 8392.01  
NYS Route 6 over Metro North Railroad Bridge Replacement  
BIN 1003510  
Town of Southeast, Village of Brewster, Putnam County

U.S. DEPARTMENT OF TRANSPORTATION  
Federal Highway Administration  
and  
New York State Department of Transportation

Submitted pursuant to 49 U.S.C. 303. This evaluation was prepared in consultation with FHWA and has been reviewed for scope and content and is released for comments.

6/26/2018  
DATE

  
Director, Office of Design  
NYS Department of Transportation

07/09/2018  
DATE

  
District Engineer  
Federal Highway Administration  
New York Division

June 2018

**1. Introduction** – The requirements of Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 (now codified at 23 USC Section 138 and 49 USC Section 303) apply only to agencies within the USDOT, such as the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). Section 4(f) prohibits the Secretary of Transportation from approving any program or project that requires the use of a Section 4(f) resource, unless there is no feasible and prudent alternative to the use of such land and all possible planning has been undertaken to minimize harm to the Section 4(f) resource. Section 4(f) resources include publicly owned parks and recreational areas, wildlife and waterfowl refuges, and historic sites (sites listed on or determined eligible for listing on the National Register of Historic Places). This evaluation was also prepared in accordance with the FHWA implementing regulations for Section 4(f) at 23 CFR Part 774, as well as the FHWA's Section 4(f) Policy Paper, July 20, 2012.

The Build Alternative would require the use of a historic site. This Draft Individual Section 4(f) Evaluation has been prepared because this use cannot be avoided and the Build Alternative would have more than a *de minimis* impact on the historic site.

**2. Proposed Action** – The New York State Department of Transportation (NYSDOT) proposes this federally-funded project to replace the NYS Route 6 bridge over the Metro North Railroad (MNRR), BIN 1003510. The Build Alternative entails demolition of the existing Route 6 bridge over the MNRR and replacing it in a new location that will align Route 6 (Carmel Avenue) with Michael Neuner Drive. Site location figures are attached. A project plan is also attached, along with renderings showing the proposed alterations to historic Section 4(f) properties.

The project objectives are to:

- Restore the subject bridge rating to condition 7, or greater, to ensure the safety and mobility of the traveling public for a service life of at least 75 years using cost effective techniques to minimize the life cycle cost of maintenance and repair.
- Meet the goal in the Village of Brewster's 2015 Comprehensive Plan relating to the intersection by realigning Route 6 to line up with Michael Neuner Drive (described in more detail below).

The existing bridge was constructed circa 1936 as a replacement to a previous bridge that carried Route 6 (Carmel Avenue) across the MNRR on a different alignment. The existing bridge shows signs of serious deterioration and needs major rehabilitation or replacement. This structure is considered functionally obsolete because it is a non-redundant structure<sup>1</sup>. This means that when feasible, replacement is recommended.

The Village of Brewster 2015 Comprehensive Plan identifies this area as a gateway to the Village and recommends improving the offset four-leg intersection by realigning Route 6 (Carmel Avenue) to line up with Michael Neuner Drive. When NYSDOT met with the Village of Brewster, they indicated that replacement of the bridge on a new southern alignment is their preferred alternative for this project.

Bridge replacement on a new, southern alignment meets both project objectives.

The following are additional details of the proposed project:

- The replacement bridge on the new alignment will require fee takings, permanent easements, and temporary easements.

---

<sup>1</sup> From the 2017 NYSDOT Bridge Manual: "Redundancy is a very significant factor in determining the rehabilitation versus replacement decision. The Department puts special emphasis on bridges where failure of one principle load carrying member would result in the probable collapse of the structure. The rehabilitation versus replacement decision of non-redundant structures shall take into consideration its sensitivity to being non-redundant, the consequences of no action and the feasibility of adding redundancy to the structure...Non-redundancy shall be a factor in favor of replacement."

- The minimum vertical clearance between the existing bridge and the railroad tracks is currently 19'-3". The NYSDOT Freight and Passenger Rail Bureau has required NYSDOT to provide 19'-6" of clearance under the replacement bridge.

**3. Section 4(f) Properties** – Section 4(f) historic sites were identified through the Section 106 process (36 CFR Part 800) in consultation with the New York State Historic Preservation Officer (SHPO).

The subject bridge was previously evaluated as part of the NYSDOT 2002 Statewide Historic Bridge Inventory and determined to be not eligible for the National Register of Historic Places.

The New York State Museum State Education Department (NYSED) conducted an architectural survey within the project's Area of Potential Effects (APE). Their report identified four properties within the APE as eligible for the National Register of Historic Places; the SHPO has concurred that these are eligible properties:

- Philip Beal House, 4 Putnam Avenue, USN 07941.000032
- Private Residence, 2624 Carmel Avenue, USN 07941.000033
- Private Residence, 2633-35 Carmel Avenue, USN 07941.000034
- Alfred Bailey House / John R. Yale House, 2637-39 Carmel Avenue, USN 07941.000035

A Project Plan is attached that shows the properties in relation to the project. Details on the properties are described below. Photographs of each property are also attached. More information about the history and historic character of the properties can be found in the Cultural Resources Survey Report dated October 2016 prepared by the NYSED (project #8392.01.101).

Philip Beal House, 4 Putnam Avenue

The Philip Beal House is located on the north side of Putnam Avenue, 125 feet west of the intersection of Carmel Avenue (Route 6), on an approximately 2-acre parcel. It is a privately-owned historic property eligible for the National Register of Historic Places under Criterion C as an excellent example of Shingle architecture in the Village of Brewster. The structure was originally a residence, but currently serves as office space. The Philip Beal House is the structure located closest to Carmel Avenue (Route 6), setback approximately 60 feet from the road, and is approximately 4,000 square feet. Changes to the property have included the addition of a Quonset hut and multiple garages behind the dwelling, which are non-contributing resources.

Private Residence, 2624 Carmel Avenue

2624 Carmel Avenue is located on the north side of Carmel Avenue (Route 6) at the intersection of Putnam Avenue, on an approximately 0.25-acre parcel. It is a privately-owned historic property eligible for the National Register of Historic Places under Criterion C as a good example of late nineteenth vernacular architecture in the Village of Brewster. The structure serves as a residence. The house is setback approximately 50 feet from the road, and is approximately 3,785 square feet. The building retains integrity except for the addition of a two-story rear wing and a wooden fire escape and deck on west side, reflecting conversion to multi-family use.

Private Residence, 2633-35 Carmel Avenue

2633-35 Carmel Avenue is located on the south side of Carmel Avenue (CR 36) on an approximately 0.4-acre parcel. It is a privately-owned historic property eligible for the National Register of Historic Places under Criterion C as a good example of late nineteenth vernacular architecture in the Village of Brewster. The structure serves as a residence. The property consists of two structures: the historic house closest to Carmel Avenue (setback approximately 60 feet from the road) and a renovated carriage house behind it that is non-contributing. A

cobblestone wall located along the street and a stone retaining wall along the southern boundary of the property are contributing elements to the eligibility of the house. The historic house is approximately 2,282 square feet and retains integrity except for the reconstructed porch and the added deck on the east side.

Alfred Bailey House / John R. Yale House, 2637-39 Carmel Avenue

The Bailey/Yale House is located on the south side of Carmel Avenue (CR 36) on an approximately 4.4-acre parcel. It is a privately-owned historic property eligible for the National Register of Historic Places under Criterion C as a good example of mid nineteenth vernacular architecture in the Village of Brewster. The structure serves as a residence. The historic house is located at the current end of Carmel Avenue, setback approximately 100 feet from the street and is approximately 3,092 square feet. The building retains integrity except for the porch, which replaced an original front porch, the dormers, and possibly the entry, which may have replaced an earlier entry in the late nineteenth century. The property contains additional structures behind the house that are contributing resources: a tenant house, carriage house, and shed.

**4. Impacts on the Section 4(f) Properties** – To construct the new Route 6 (Carmel Avenue) bridge over the Metro North Railroad on a new southern alignment, the existing dead-end road (also called Carmel Avenue) will be realigned and its elevation increased. The work will also require the adjustment of the intersection of Putnam Avenue and Route 6.

Impacts to the private residence at 2633-35 Carmel Avenue will result in a non-*de minimis* use of the 4(f) property. Impacts to the remaining three properties will not result in a use of those 4(f) properties (temporary occupancy exception to 4(f)). Impacts are summarized in the following table, and described in more detail below.

Property	Section 106 effect	Reason for Section 106 determination	DOT taking	Work to be completed in taking area	Section 4(f) use
Philip Beal House, 4 Putnam Ave.	No Adverse Effect	Extension of the front lawn of the property due to re-alignment of the road	None	N/A	No use
Private Residence, 2624 Carmel Ave.	No Adverse Effect	Extension of the front lawn of the property due to re-alignment of the road	~380 sq. ft. temporary easement	-Construction access for sidewalk construction and re-grading adjacent to the new road alignment.	No use – temporary occupancy
Private Residence, 2633-35 Carmel Ave.	Adverse Effect	Burial of the contributing cobblestone wall	~1,748 sq. ft. temporary easement	-Re-grading of the front lawn to meet the new road elevation. -Burial in place of the stairs and cobblestone wall along the road. -Burial of a portion of the stone retaining wall -Removal and resetting of cobblestone pillar at property corner	Non- <i>de minimis</i> use
Alfred Bailey House / John R. Yale House, 2637-39 Carmel Ave.	No Adverse Effect	Lengthening and raising of elevation of the driveway	~2,750 sq. ft. temporary easement	-Re-grading the driveway to meet the new road elevation. -Extension of the driveway to meet the new road alignment.	No use – temporary occupancy



### Philip Beal House, 4 Putnam Avenue

Constructing the new bridge on a new alignment will require realignment of the intersection of Putnam Avenue and Route 6 (Carmel Avenue), including relocating the existing sidewalks in front of the Philip Beal House; see attached plan. The sidewalks will be moved up to 18 feet further away from the building, which will increase the area of the front lawn space. The FHWA, in coordination with NYSDOT and in consultation with the SHPO, has determined, through the Section 106 process, that this sidewalk and roadway relocation will result in *No Adverse Effect* on the Philip Beal House. There will be no right-of-way (ROW) takings or temporary or permanent easements on the property.

NYSDOT has applied the Section 4(f) “use” criteria under 23 CFR 774.17 and determined that the project will not result in a use of the property under Section 4(f). There will be no permanent incorporation into a transportation use, no temporary occupancy that is adverse in terms of the attributes that qualify the property for Section 4(f) protection, and no constructive use.

### Private Residence, 2624 Carmel Avenue

Constructing the new bridge on a new alignment will require the adjustment of the intersection of Putnam Avenue and Route 6 (Carmel Avenue), including relocating the existing sidewalks in front of the private residence at 2624 Carmel Avenue; see attached plan. The sidewalks will be moved up to 18 feet away from the building, which will increase the area of the lawn space. The FHWA, in coordination with NYSDOT and in consultation with the SHPO, has determined, through the Section 106 process, that this sidewalk and roadway relocation will result in *No Adverse Effect* on the property at 2624 Carmel Avenue. The project will require an approximately 380 sq. ft. temporary easement of the property for sidewalk construction.

NYSDOT has applied the exception criteria under 23 CFR 774.13(d) for “temporary occupancies of land that are so minimal as to not constitute a use within the meaning of Section 4(f)” and determined that the impacts to this property meet the exception criteria, as described below:

- The duration will be temporary (less than the time needed for construction of the project) and there will be no change in ownership.
- The scope of work is minor (the nature and magnitude of the changes to the property are minimal).
- There are no anticipated permanent adverse physical impacts and no interference with the protected features of the property.
- The land being used will be fully restored to a condition that is at least as good as that which existed prior to the project.
- Documented agreement with SHPO of a No Adverse Effect determination.

### Private Residence, 2633-35 Carmel Avenue

Reconstructing the existing dead-end roadway at the required elevations will result in the contributing cobblestone wall at 2633-35 Carmel Avenue being below grade upon completion of the project; only the upper portion of the stone pillars will remain. Any portion of the cobblestone wall remaining above the final grade (primarily, the coping stones) will be removed, as they would be an obstruction to pedestrians. Since the new roadway grade will eliminate the need for steps, the existing stair detail will not remain. However, the existing stone pillars will be removed and reset to frame the new walkway for the residence. Within the easement area, a portion of the stone retaining wall on the southern boundary of the property will also be partially buried in place due to raising the grade of the adjacent driveway to meet the new roadway elevation. The cobblestone pillar at the corner of the property, where the two walls meet, will be

removed and reset after construction. The proposal was discussed with the property owner and found acceptable. Renderings depicting the existing and proposed conditions are attached. The project will require an approximately 1,748 sq. ft. temporary easement of the property for re-grading.

Since the cobblestone wall is a contributing element of this National Register eligible property, and impacts to the wall are significant and unavoidable, the FHWA, in coordination with NYSDOT and in consultation with the SHPO, has determined, through the Section 106 process, that this constitutes an *Adverse Effect* on the property at 2633-35 Carmel Avenue.

NYSDOT has applied the Section 4(f) “use” criteria under 23 CFR 774.17 and determined that the project will result in a non-*de minimis* use of the property under Section 4(f) since the temporary occupancy is adverse in terms of the attributes that qualify the property for Section 4(f) protection.

#### Alfred Bailey House / John R. Yale House, 2637-39 Carmel Avenue

Reconstructing the existing dead-end roadway at the required elevations will impact the current driveway configuration of the John R. Yale House. The project will require re-grading and extension of the residence’s driveway entrance to intersect with the new alignment of Carmel Avenue. A rendering is attached. The alignment has been discussed with the property owners and found acceptable. The FHWA, in coordination with NYSDOT and in consultation with the SHPO, has determined, in accordance with the Section 106 process, that this constitutes a *No Adverse Effect* on the property at 2637-39 Carmel Avenue. The project will require an approximately 2,750 sq. ft. temporary easement of the property where the re-grading and driveway extension will occur.

NYSDOT has applied the exception criteria under 23 CFR 774.13(d) for “temporary occupancies of land that are so minimal as to not constitute a use within the meaning of Section 4(f)” and determined that the impacts to this property meet the exception criteria, as described below:

- The duration will be temporary (less than the time needed for construction of the project) and there will be no change in ownership.
- The scope of work is minor (the nature and magnitude of the changes to the property are minimal).
- There are no anticipated permanent adverse physical impacts and no interference with the protected features of the property.
- The land being used will be fully restored to a condition that is at least as good as that which existed prior to the project.
- Documented agreement with SHPO of a No Adverse Effect determination.

**5. Avoidance Alternatives** – The following alternatives avoid any use of the Section 4(f) property at 2633-35 Carmel Avenue:

No-Build or “Null” Alternative: The no-build alternative will result in the continued deterioration of the bridge, resulting in increased maintenance and eventually requiring the bridge to be closed to traffic. There will be no changes to any features or structures near the bridge. The no-build alternative provides only for continued routine maintenance of the bridge. This alternative does not meet the project’s purpose and need of restoring the integrity of the bridge and providing a realigned intersection of Route 6 (Carmel Avenue), North Main Street, and Michael Neuner Drive. Therefore, this alternative is not considered feasible and prudent, as defined in 23 CFR 774.17.

Rehabilitate Existing Bridge: This alternative would rehabilitate the existing bridge by repairing the deteriorated aspects of the structure and replacing the existing bridge deck. There would not be any reconfiguring of any roadway alignments, intersections, or acquisition of ROW. The cobblestone and stone retaining wall features at 2633-35 Carmel Avenue would be undisturbed.

This alternative does not meet the project's purpose and need to provide a realigned intersection of Route 6, North Main Street, and Michael Neuner Drive. Also, as described earlier, this structure is considered functionally obsolete because it is a non-redundant structure and therefore replacement is recommended when feasible.

Due to the advanced deterioration evident on this structure, rehabilitation would need to address multiple structural and operational deficiencies, making it extremely costly. The duration of a rehabilitation would be considerable since the work areas needed for the rehabilitation are limited and interfere with one another. The fascia beams on the bridge need to be rehabilitated and the deck is deteriorated at the shoulder areas, so staged rehabilitation work is not possible while maintaining two lanes on the bridge. The substructure bearing work would require shifting traffic to the area on the superstructure that needs rehabilitation. Construction of a temporary bridge would alleviate this issue, but the expense for that would be high including the need for MNRR coordination for construction of the abutments for such a temporary bridge.

As described above, the rehabilitation alternative is not considered feasible and prudent, as defined in 23 CFR 774.17, because it will result in additional construction and maintenance costs of an extraordinary magnitude and it does not meet the stated purpose and need.

Replace Bridge in Existing Location: This alternative would replace the bridge in its existing location. The existing bridge would be demolished, and the entire bridge substructure and superstructure would be replaced. The cobblestone and stone retaining wall features at 2633-35 Carmel Avenue would remain as they are.

This alternative does not meet the project's purpose and need to provide a realigned intersection of Route 6 (Carmel Avenue), North Main Street, and Michael Neuner Drive. Additionally, this alternative would require construction of a temporary bridge for access for emergency responders, school buses, and pedestrians. Extra wide abutments would be required at the Main Street intersection to accommodate the geometry. It would also be necessary to make alternative arrangements for the temporary utility relocations. MNRR coordination would be required for all the work on the temporary bridge and the replacement bridge.

This alternative is not considered feasible and prudent, as defined in 23 CFR 774.17, because it will result in additional construction costs of an extraordinary magnitude and it does not meet the stated purpose and need.

**6. Coordination** – This Section 4(f) evaluation is being provided for coordination and comment to the official with jurisdiction over the Section 4(f) resource and the Department of the Interior (DOI) (23 CFR Section 774.5). The SHPO is identified as the Official with Jurisdiction.

Through the Section 106 process, coordination between the NYSDOT, FHWA, and SHPO has occurred for the consideration of avoidance alternatives, impacts to the properties, and measures to minimize harm. Preparation of a Memorandum of Agreement (MOA) between the NYSDOT, FHWA, and SHPO is ongoing.

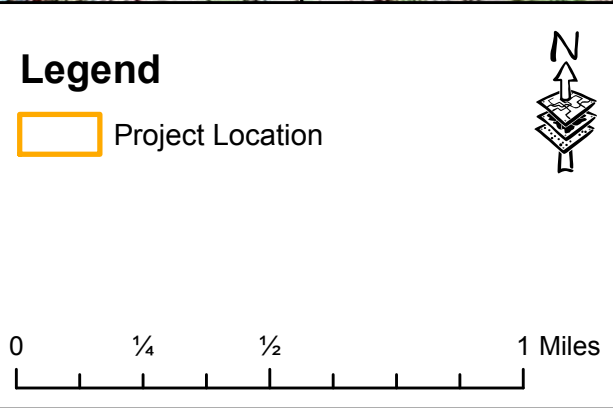
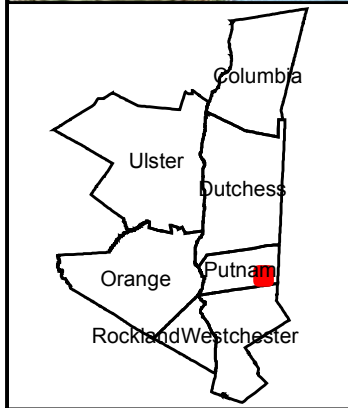
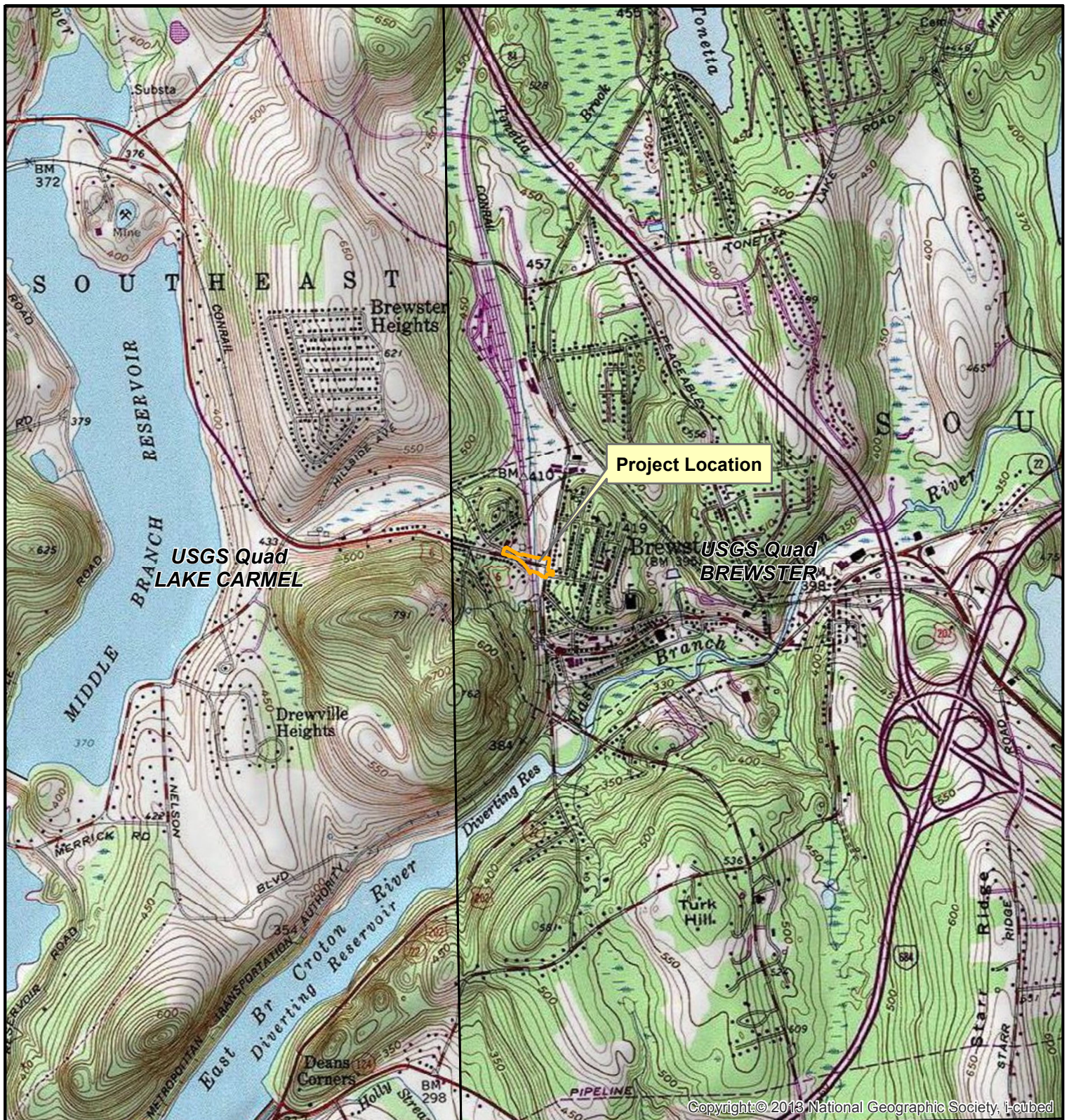
In accordance with 23 CFR § 774.5(a), this Draft Individual Section 4(f) Evaluation will be provided to the DOI for review and comment.

Once this Draft Individual Section 4(f) Evaluation has been circulated, any identified issues and further coordination will be addressed in the Final Section 4(f) Evaluation, along with a least overall harm discussion. The executed MOA will also be attached to the Final Section 4(f) Evaluation.

**7. Measure to Minimize Harm** – Measures to minimize and mitigate adverse effects are being developed in consultation with the SHPO and FHWA through the Section 106 process and will be recorded in the finalized Section 106 MOA for the project. To the greatest extent possible, the cobblestone wall at 2633-35 Carmel Avenue will be buried in place. It is proposed that any portion of the cobblestone wall remaining above the final grade (primarily, the coping stones) will be removed, as they would be an obstruction to pedestrians. The three existing stone pillars will be removed and reset. Only a small portion of the stone retaining wall along the southern boundary of 2633-35 Carmel Avenue will be buried. See attached renderings for details. Finally, the walls will be recorded equivalent to Historic American Engineering Record (HAER) standards, using digital photography, prior to the start of construction.

## LOCATION MAP



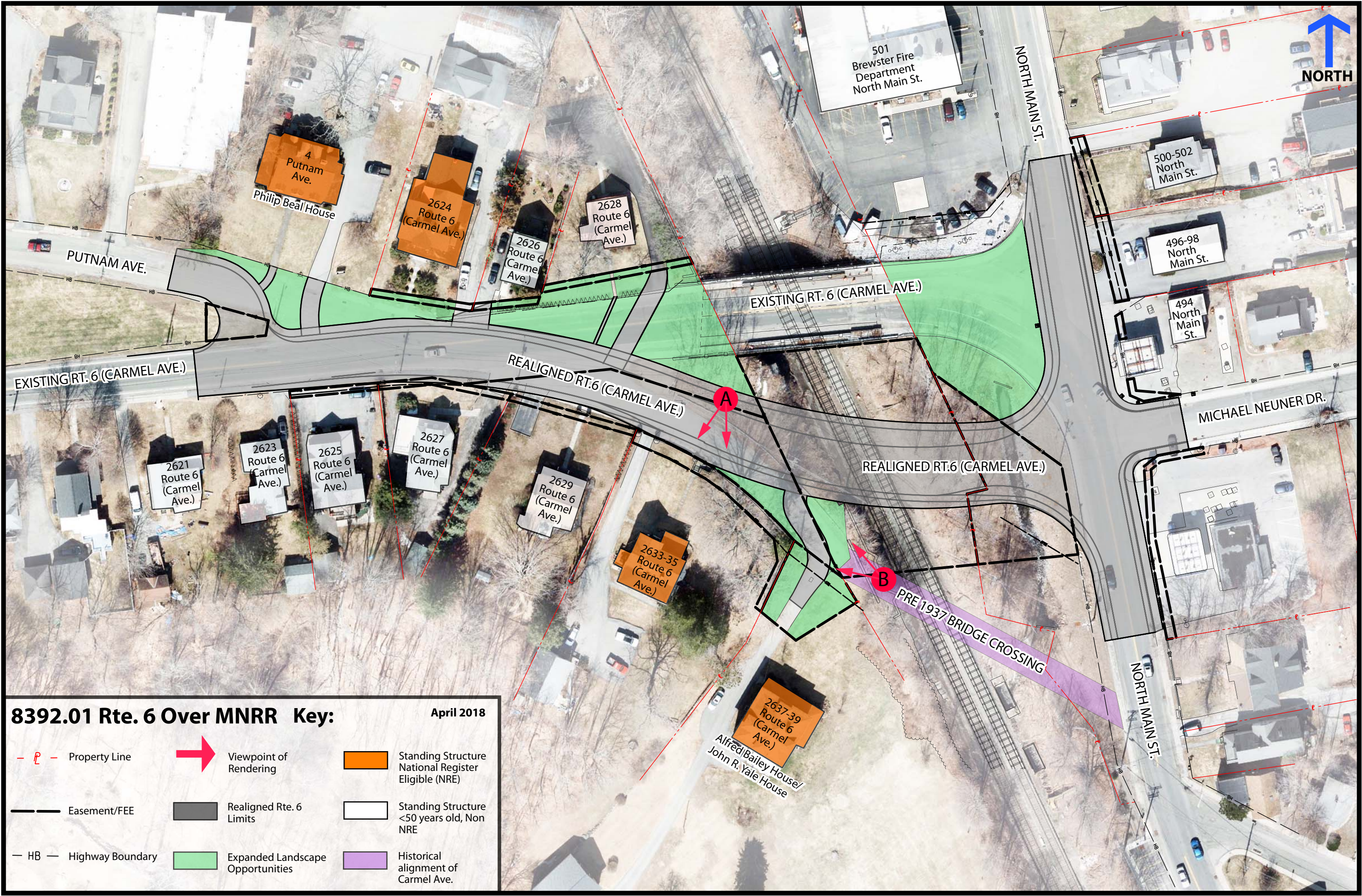


PROJECT LOCATION MAP		
Route 6 over MNR Harlem Line Bridge Replacement (BIN 1003510) Village of Brewster Putnam County		
STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION REGION 8		
PIN 8392.01	DATE 9/14/2016	FIGURE 1



## **PROJECT PLAN**







## **RENDERINGS**

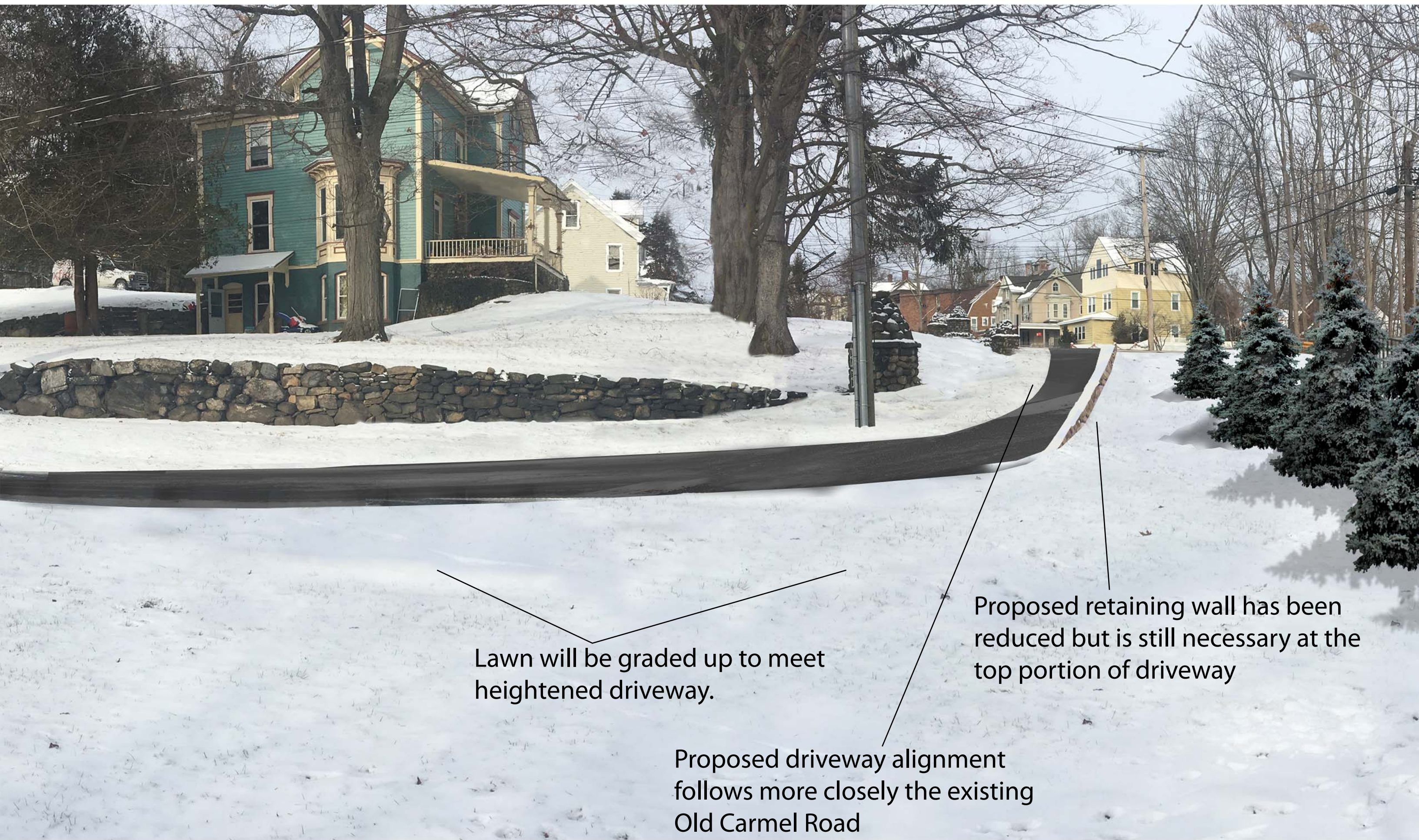




2637-39 Route 6 (Carmel Ave.) - Alfred Bailey House/John R. Yale House

**B** Route 6 over MNRR: Driveway- Existing Conditions









2633-35 Route 6 (Carmel Ave.)

A Route 6 over MNRR: Stairs- Existing Conditions







## **PHOTOGRAPHS**



Route 6 over Metro North Railroad Bridge (BIN 1003510) elevation view.



Begin approach of Route 6 over Metro North Railroad Bridge (BIN 1003510).





View of the Philip Beal House (4 Putnam Ave) looking north, showing lawn and sidewalk. Photo by NYSED.



View of 2624 Carmel Avenue looking southeast showing associated lawn, bushes and concrete sidewalk. Photo by NYSED.





View of 2633-35 Carmel Avenue looking south, showing the cobblestone wall along the street.  
Photo by NYSED.



View of the Bailey/Yale House, 2637-39 Carmel Avenue (CR 36), front (north) and east sides, looking southwest. Photo by NYSED.